

## AMENDMENTS TO THE CLAIMS

Please cancel claims 1 – 7, and 16 – 22. Please add claims 31 – 44, as follows.

1 1 – 7. (Canceled)

1 8. (Withdrawn) A method of managing locks by a distributed lock management system,  
2 the method comprising the steps of:

3 a first lock manager on a first node receiving a first request for a first lock on a  
4 resource from a first requester;

5 wherein said distributed lock management system includes said first lock manager;  
6 determining that said first request may not be granted because of a blocking  
7 condition;

8 said first lock manager storing in a data structure first data that may be used by said  
9 first requester to obtain notification that said blocking condition should no  
10 longer cause denial of a request for a lock on said resource; and  
11 said first lock manager transmitting to said first requester a first response that:  
12 indicates that said first request is denied, and  
13 includes a copy of said first data.

1 9. (Withdrawn) The method of claim 8, wherein the steps include:  
2 receiving a message that indicates that said blocking condition should no longer cause  
3 denial of a request for a lock on said resource; and  
4 modifying said data structure to indicate that said blocking condition should no longer  
5 cause denial of a request for a lock on said resource.

1 10. (Withdrawn) The method of claim 9, wherein the step of receiving said message  
2 includes receiving said message from said first requester.

1 11. (Withdrawn) The method of claim 8, wherein:  
2 the steps further include said first lock manager transmitting to another lock manager  
3 of said distributed lock management system a message requesting said first  
4 lock on said resource; and  
5 wherein the step of determining is based on a second response received from said  
6 other lock manager indicating that said first request cannot be granted;  
7 wherein said second response includes a copy of said first data.

1 12. (Withdrawn) The method of claim 8, wherein the steps further include:  
2 receiving a second request for another lock on said resource;  
3 determining, based on said first data, that said second request may not be granted;  
4 said first lock manager transmitting to said second requester another response that:  
5 indicates that said second request is not granted, and  
6 includes a copy of said first data.

1 13. (Withdrawn) The method of claim 12, wherein:  
2 said first lock manager is a master of said resource; and  
3 wherein the step of receiving said second request includes receiving said second  
4 request from another lock manager.

1 14. (Withdrawn) The method of claim 12, wherein:  
2 said first lock manager and a process are on a node, wherein said process is different  
3 than said first requester; and  
4 the step of receiving said second request includes receiving said second request from  
5 said process.

1 15. (Withdrawn) The method of claim 8, wherein:  
2 said distributed lock management system includes a master for said resource; and  
3 wherein no lock is currently granted for said resource by said master.

1 16- 22. (Canceled)

1 23. (Withdrawn) A computer-readable medium carrying one or more sequences of  
2 instructions for managing locks by a distributed lock management system, wherein  
3 execution of the one or more sequences of instructions by one or more processors  
4 causes the one or more processors to perform the steps of:

5 a first lock manager on a first node receiving a first request for a first lock on a  
6 resource from a first requester;  
7 wherein said distributed lock management system includes said first lock manager;  
8 determining that said first request may not be granted because of a blocking  
9 condition;  
10 said first lock manager storing in a data structure first data that may be used by said  
11 first requester to obtain notification that said blocking condition should no  
12 longer cause denial of a request for a lock on said resource; and  
13 said first lock manager transmitting to said first requester a first response that:  
14 indicates that said first request is denied, and  
15 includes a copy of said first data.

1 24. (Withdrawn) The computer-readable medium of claim 23, wherein the steps include:  
2 receiving a message that indicates that said blocking condition should no longer cause  
3 denial of a request for a lock on said resource; and  
4 modifying said data structure to indicate that said blocking condition should no longer  
5 cause denial of a request for a lock on said resource.

1 25. (Withdrawn) The computer-readable medium of claim 24, wherein the step of  
2 receiving said message includes receiving said message from said first requester.

1 26. (Withdrawn) The computer-readable medium of claim 23, wherein:  
2 the steps further include said first lock manager transmitting to another lock manager  
3 of said distributed lock management system a message requesting said first  
4 lock on said resource; and  
5 wherein the step of determining is based on a second response received from said  
6 other lock manager indicating that said first request cannot be granted;  
7 wherein said second response includes a copy of said first data.

1 27. (Withdrawn) The computer-readable medium of claim 23, wherein the steps further  
2 include:  
3 receiving a second request for another lock on said resource;  
4 determining, based on said first data, that said second request may not be granted;  
5 said first lock manager transmitting to said second requester another response that:  
6 indicates that said second request is not granted, and  
7 includes a copy of said first data.

1 28. (Withdrawn) The computer-readable medium of claim 27, wherein:  
2 said first lock manager is a master of said resource; and  
3 wherein the step of receiving said second request includes receiving said second  
4 request from another lock manager.

1 29. (Withdrawn) The computer-readable medium of claim 27, wherein:  
2       said first lock manager and a process are on a node, wherein said process is different  
3               than said first requester; and  
4       the step of receiving said second request includes receiving said second request from  
5               said process.

1 30. (Withdrawn) The computer-readable medium of claim 23, wherein:  
2       said distributed lock management system includes a master for said resource; and  
3       wherein no lock is currently granted for said resource by said master.

1 31. (New) A method, the method comprising the steps of:  
2       a requester transmitting to a lock management system a request for a certain lock on a  
3               first resource;

4       receiving a response from said lock management system that denies said request for a  
5               certain lock on said first resource;

6       wherein said response that denies said request for a certain lock on said first resource  
7               is caused by a blocking condition;

8       wherein said response includes data that identifies a second resource different than  
9               said first resource;

10      wherein said lock management system does not grant a lock on said second resource  
11               to said requester while said blocking condition is in effect; and  
12      said requester determining said blocking condition is no longer in effect by  
13               performing certain steps that include:

14      said requester transmitting to said lock management system a request for a  
15               lock on said second resource; and  
16      said requester receiving from said lock management system a response that  
17               grants said request for said lock on said second resource.

1 32. (New) The method of claim 31, wherein said second resource is a transaction and said  
2 first resource is a resource locked for said transaction.

1 33. (New) The method of claim 32, wherein said data that identifies a second resource  
2 includes a transaction id identifying said transaction.

1 34. (New) The method of claim 31, wherein:  
2 said first resource is a data block; and  
3 said blocking condition is based on said data block undergoing a block-split  
4 operation.

1 35. (New) The method of claim 34, wherein said data block is marked to indicate the data  
2 block is undergoing said block split operation.

1 36. (New) The method of claim 31, further including in response to determining when  
2 said blocking condition no longer prevents said lock management system from  
3 granting a lock on said first resource, said first requester informing said lock  
4 management system that said blocking condition is no longer in effect.

1 37. (New) The method of claim 31, said first requester informing said lock management  
2 system that said blocking condition is no longer effect by making another request for  
3 a lock of said first resource, said request including data specifying that said blocking  
4 condition is no longer effect.

1 38. (New) A computer-readable medium carrying one or more sequences of instructions,  
2 wherein execution of the one or more sequences of instructions by one or more  
3 processors causes the one or more processors to perform the steps of:  
4 a requester transmitting to a lock management system a request for a certain lock on a  
5 first resource;

6 receiving a response from said lock management system that denies said request for a  
7 certain lock on said first resource;  
8 wherein said response that denies said request for a certain lock on said first resource  
9 is caused by a blocking condition;  
10 wherein said response includes data that identifies a second resource different than  
11 said first resource;  
12 wherein said lock management system does not grant a lock on said second resource  
13 to said requester while said blocking condition is in effect; and  
14 said requester determining said blocking condition is no longer in effect by  
15 performing certain steps that include:  
16 said requester transmitting to said lock management system a request for a  
17 lock on said second resource; and  
18 said requester receiving from said lock management system a response that  
19 grants said request for said lock on said second resource.

- 1 39. (New) The computer-readable medium of claim 38, wherein said second resource is a  
2 transaction and said first resource is a resource locked for said transaction.
- 1 40. (New) The computer-readable medium of claim 39, wherein said data that identifies a  
2 second resource includes a transaction id identifying said transaction.
- 1 41. (New) The computer-readable medium of claim 38, wherein:  
2 said first resource is a data block; and  
3 said blocking condition is based on said data block undergoing a block-split  
4 operation.
- 1 42. (New) The computer-readable medium of claim 41, wherein said data block is  
2 marked to indicate the data block is undergoing said block split operation.
- 1 43. (New) The computer-readable medium of claim 38, the one or more sequences of  
2 instructions further including instructions for in response to determining when said

3           blocking condition no longer prevents said lock management system from granting a  
4           lock on said first resource, said first requester informing said lock management  
5           system that said blocking condition is no longer in effect.

1       44. (New) The computer-readable medium of claim 38, the one or more sequences of  
2           instructions further including instructions for said first requester informing said lock  
3           management system that said blocking condition is no longer effect by making  
4           another request for a lock of said first resource, said request including data  
5           specifying that said blocking condition is no longer effect.